anticipated by U.S. Patent No. 5,901,211 to Dean et al. In addition, claims 4, 5, 8, 9 and 10-15 stand rejected under 35 U.S.C. §103 as being unpatentable over the Dean et al. patent when combined with what the Examiner refers to, without citing any references, as an "Advanced Intelligent Network (AIN) environment".

As will be discussed below, none of the pending claims are anticipated or rendered obvious by the applied prior art.

II. Summary of the Invention

For the Examiner's convenience, set forth below is a brief summary of the invention.

The present invention is directed to methods and apparatus for providing call forwarding services and for providing optional notification of forwarded calls. The call forwarding techniques of the present invention are implemented using AIN next event list functionality. In accordance with the present invention, call processing records, including a next event list, are generated and stored in an SCP for each call forwarding service subscriber. By using an SCP and AIN next event list functionality to provide call forwarding services, subscriber control over such services is facilitated as compared to switch based call forwarding implementations. This is because user control over switch based functionality is somewhat limited in modern telephone

systems. In accordance with the present invention, subscribers are allowed to update their call forwarding service information stored at, e.g., a service control point, by calling an interactive voice response system or via a computer and the Internet.

In accordance with the present invention, call forwarding service subscribers are provided the opportunity to be informed of forwarded calls through the use of a distinctive ring, e.g., a short ring sometimes called a Ping-Ring. The distinctive ring may be implemented by using AIN next event list functionality to connect an incoming call for a few seconds to the called line before being forwarded to the telephone number selected by the customer. This has the effect of causing the subscriber's line to ring briefly, e.g., less than a full ring, before being forwarded. In another implementation, the SCP responsible for controlling forwarding of a call sends a message to the telephone switch to which the subscriber's phone is connected to cause the telephone to produce one of a plurality of distinctive rings. In addition, the SCP causes the call to be forwarded to a telephone number indicated by the subscriber. The communications system of the present invention through the use of call processing records and the next event list of modern AIN systems, supports a wide range of call forwarding services.

II. The Rejections Under §102

Representative claim 1 is patentable because it recites in pertinent part:

> 1. A method of controlling a call forwarding service comprising:
> **detecting receipt of a first control signal from a first telephone;**
> determining from stored information if the first telephone corresponds to a telephone for which call forwarding service is supported;
> if it is determined that call forwarding service is supported for the first telephone, determining if a previously stored telephone number is available for use in call forwarding; and
> if it is determined that a previously stored telephone number is available, enabling the forwarding of calls directed to the first telephone to a second telephone using said previously stored telephone number.

In the Office Action the Examiner rejected claims 1-3, 6, 7, 16-12 as being anticipated by the Dean et al. patent. **The Examiner's rejection of all the pending claims is based on a mis-interpretation of the Dean et al. patent and in particular, a mistaken assumption that the first control signal cited by the Examiner (col. 2, lines 9-20 of the Dean Patent) is from a telephone.**

A review of the Dean et al. patent shows that **the control signal cited by the Examiner is NOT from a telephone and, further, that the Dean et al. patent**

actually teaches that a control signal from a telephone should not be used for security reasons.

In rejecting claims 1 and 16 the Examiner states:

> Regarding claims 1 and 16, Dean teaches the steps of: **detecting receipt of a first control signal from a first telephone ("first output") (col. 2, lines 9-20);** determining from stored information if the first telephone corresponds to a telephone for which call forwarding service is supported, enabling the forwarding of calls directed to the first telephone to a second telephone ("second output") using the previously stored telephone number (col. 2, lines 21-27 and 50-58); if it is determined that call forwarding service is supported for the first telephone, determining if a previously stored telephone number is available for us in call forwarding (col. 3, lines 15-20).

In the Dean et al. patent, call forwarding is controlled based on the output of a detecting unit, such as an electronic door lock system with a switch, which is used to detect an event such as opening of a hotel door. (See, col. 2, lines 11-26) Nowhere in the Dean et al. patent is the event detecting unit described as part of a telephone. Examples of the detecting unit include: an infra-red detecting system, radio detecting system, magnetic detection system, bar code reading system, optical character recognition system, etc. (See, col. 2, lines 66-col. 3, line 2). Accordingly, in the **Dean et al.** patent, the "first control signal" cited by the Examiner is not from a telephone. In fact, the Dean et

al. patent teaches that it is undesirable to control call forwarding from a hotel telephone since this allows anyone with access to the room to control telephone call forwarding which may be undesirable. (See, col. 1, lines 41-44)

Since the Dean et al. patent fails to teach, disclose or suggest

detecting receipt of a first control signal from a first telephone;

as recited in claim 1, claim 1 and the claims which depend there from are patentable over the applied reference.

The remaining claims are allowable for the same general reasons that claim 1 is allowable.

III. The Rejections Under §103

The Examiner rejections under 35 U.S.C. §103 are based on the Dean et al. patent which is deficient for the above discussed reasons. Accordingly, the obviousness rejection has been overcome for the same reasons discussed above that the §102 rejection has been overcome.

However, the obviousness rejections are also improper because the Examiner has failed to establish that the claimed subject matter would be obvious in view of existing prior art.

The Examiner has failed to cite a reference which describes the "Advanced Intelligent Network (AIN) environment" upon which the rejection is based. The Examiner has also failed to discuss how he would modify the existing "AIN environment" to achieve the present invention.

Applicants note that while AIN allows many telephone functions to be implemented, the functionality of an AIN system, and the signaling which is used in AIN, often differs from the functionality and signaling associated with a PBX. **As a result, e.g., due to AIN's limited ability to control telephone switch operation as a result of signaling and other limitations, it is not always possible to implement the equivalent of a switch based service in AIN and/or how to provide such services using AIN it is often a non-trivial matter requiring non-obvious techniques to achieve a desired service.**

Given this, Applicants respectfully request that in any future office action, if the Examiner rejects any of the pending claims, the Examiner rely on one or more actual AIN references and explain how such references would be modified to implement the system of the present invention and why such modifications would be obvious in view of the applied prior art.

IV. Request for Clarification

If the Examiner persists in any rejections based on the **Dean et al.** patent, it is respectfully requested that the Examiner identify where the patent describes **"detecting receipt of a first control signal from a first telephone" as discussed above the signal cited by the Examiner is clearly not from a telephone.**

If the Examiner persists in any rejections based on an "Advanced Intelligent Network (AIN) environment" it is requested that the Examiner provide a reference which describes the particular system the Examiner is referring to and explain how the system would be modified to achieve the present invention.

In addition, if the Examiner rejects any claims it is requested that the Examiner explicitly identify where, in a reference, each element of any rejected claims can be found. Applicants request that the Examiner provide explicit cites for elements of dependent claims as well as independent claims since many of the dependent claim features are believed to be novel as used in the claimed methods. Such information is required so that Applicants can fully and fairly respond to any maintained or new rejections.

V. Conclusion

Claims 1-20 are pending. None of the claims are anticipated or rendered obvious by the prior art of record. Accordingly, the application is now in condition for allowance.

If there are any outstanding issues that need to be resolved to place the application in condition for allowance the Examiner is invited to contact Applicants' undersigned representative to discuss said issues.

Respectfully submitted,

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May 12, 2003

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CERTIFICATE OF MAILING under 37 C.F.R. 1.8(a)

I hereby certify that this correspondence is being deposited on **August 3, 2001** with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to **Mail Stop Non-Fee Amendment,** Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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